

Applicants : Zhongyi Li, et al.
Serial No. : 10/577,564
Filed : April 27, 2006
Page 2 of 10: Communication in Response to February 19, 2008 Office
Action

Amendments to the Claims

Please amend the claims by replacing all prior listings of claims with the listing of claims below pursuant to 37 C.F.R. §1.121:

Listing of claims:

1. (Original) Grain obtained from a rice plant, comprising starch, wherein the proportion of amylose in the starch of the grain is at least 40%.
2. (Original) The grain of claim 1, comprising two or more genetic variations, wherein one genetic variation is selected from the group consisting of
 - a) a mutation of an *SBEIIa* gene which inhibits *SBEIIa* expression and/or activity, and
 - b) an introduced nucleic acid which inhibits *SBEIIa* expression and/or activity, andand wherein a second genetic variation is selected from the group consisting of
 - c) a mutation of an *SBEIIb* gene which inhibits *SBEIIb* expression and/or activity, and
 - d) an introduced nucleic acid which inhibits *SBEIIb* expression and/or activity.
3. (Previously Presented) The grain of claim 1, comprising reduced levels of *SBEIIa* and *SBEIIb* proteins and/or activities.
4. (Previously Presented) The grain of claim 1, wherein the proportion of amylose in the starch of the grain is at least 50%.

Applicants : Zhongyi Li, et al.

Serial No. : 10/577,564

Filed : April 27, 2006

Page 3 of 10: Communication in Response to February 19, 2008 Office Action

5. (Previously Presented) The grain of claim 1 which comprises a transgene.
6. (Original) The grain of claim 5, wherein the transgene encodes an antisense, co-suppression, ribozyme or duplex RNA molecule.
7. (Previously Presented) The grain of claim 1 which is non-transgenic.
8. (Previously Presented) The grain of claim 2, further comprising a reduced level of SBEI protein and/or activity.
9. (Previously Presented) The grain of claim 1, comprising an altered level of a protein and/or enzyme activity selected from the group consisting of ADP glucose pyrophosphorylase, GBSS, SSI, SSII, SSIII, a debranching enzyme of an isoamylase type and a debranching enzyme of a pullulanase type.
10. (Original) The grain of claim 9, comprising an altered level of GBSS protein and/or enzyme activity.
11. (Previously Presented) The grain of claim 1 which is non-shrunken.
12. (Previously Presented) The grain of claim 1 which is brown rice having an average weight of at least about 25 mg.
13. (Previously Presented) The grain of claim 1 wherein at

least 50% of starch granules within the grain appear non-birefringent when observed under polarized light.

14. (Previously Presented) The grain of claim 1 which has a starch content that is at least 90% of the starch content of equivalent, but unaltered, grain.
15. (Currently Amended) The grain of claim 2, further comprising a null mutation of the *SBEIIa* or *SBEIIb* gene.
16. (Previously Presented) The grain of claim 1 which is of an Indica variety or which comprises a *Wx^a* allele.
17. (Previously Presented) A rice plant capable of producing the grain according to claim 1.
18. (Currently Amended) Rice starch Starch granules, comprising starch, wherein the proportion of amylose in the starch of extracted from the grain is at least 40% according to claim 1.
19. (Canceled)
20. (Currently Amended) A product comprising rice starch granules, comprising starch, wherein the proportion of amylose in the starch of the grain is at least 40% flour or starch produced from the grain according to claim 1.
- 21-23. (Canceled)
24. (Original) A method of producing a rice plant capable of producing grain, the grain having starch comprising at

Applicants : Zhongyi Li, et al.
Serial No. : 10/577,564
Filed : April 27, 2006
Page 5 of 10: Communication in Response to February 19, 2008 Office
Action

least 40% amylose, comprising the steps of

- a) introducing a genetic variation into a parent rice plant or seed; and
- b) identifying a progeny plant of the parent rice plant or seed, wherein the starch of grain of the progeny plant comprises at least 40% amylose.

25-36. (Canceled)

37. (Original) A method of producing a rice plant having a reduced level of both SBEIIa and SBEIIb proteins and/or enzyme activities in the endosperm which comprises:

- a) mutagenising seed having a reduced level of SBEIIa protein and/or enzyme activity; or
- b) mutagenising seed having a reduced level of SBEIIb protein and/or enzyme activity; or
- c) crossing a plant having a reduced level of SBEIIa protein and/or enzyme activity with a plant having a reduced level of SBEIIb protein and/or enzyme activity; and
- d) identifying a rice plant having reduced activity of both SBEIIa and SBEIIb proteins and/or enzyme activities in the endosperm.

38-42. (Canceled)

43. (Original) An isolated nucleic acid molecule which encodes an inhibitor of rice SBEIIa and an inhibitor of rice SBEIIb, which may be the same or different.

44-47. (Canceled)